

"I've got wings!"



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82

72



"I've got wings!"



Foreword

FOR CENTURIES man looked longingly at the skies. Finally, some forty years ago, at Kill Devil Hill, near Kitty Hawk, North Carolina, Orville and Wilbur Wright successfully completed the first mechanical flight.

Today, thanks to the Wright brothers, man can fly. The Air Age is here! Thousands of military and commercial airplanes are speeding across the country on well-defined, carefully regulated airways. Air routes are reaching across every continent, into every corner of the world. No place on the globe is now more than 60 flying hours from your nearest air field.

As aviation comes of age air traffic is becoming


more and more of a problem to pilots. Uniform rules and regulations are necessary to insure maximum safety in flight.

To the young men of America whose hearts are in the sky, we present this booklet. Its pictures teach the rules that every pilot must know before he can earn his wings. Learn what this booklet has to tell and you will have taken a long step toward the day when you can say, "I've Got Wings."



Art ideas for this booklet were contributed by personnel of the Air Traffic Control Division of the Civil Aeronautics Administration. "I've Got Wings" was prepared and published by the U. S. Army Air Forces, Flight Control Command.





FOLLOW ME, NOW, AND
FIRST YOU'LL LEARN WHAT
ALL GOOD PILOTS KNOW ABOUT

AIRPORTS!

Highway to
**PILOT
SUCCESS**

RIGHT THIS
WAY, MEN!



CONTROL TOWER

OH BOY! I CAN
LAND NOW--THERE'S
THE GREEN LIGHT-
GUN SIGNAL!!

I'VE BEEN CLEARED BY
RADIO FROM THE TOWER,
SO I'M TAKING OFF!



Radio
"Mike"

TOWER SIGNALS



CONTROL TOWER

GREEN LIGHT TO ME--
I'M COMIN' IN FOR
A LANDING

HEY! THAT'S THE **EMERGENCY
WARNING SIGNAL**-- FLASHING
RED AND GREEN!! I GOTTA
WATCH OUT-- SUMPN'S WRONG!

OH! RED LIGHT!
I MUST HOLD--
CAN'T TAXI!

I MUST GET
OFF THE
RUNWAY-- I
CAN'T TAKE
OFF!

I GOTTA STOP
TAXIING
IMMEDIATELY!

IT'S ALL SO SIMPLE
WHEN YOU KNOW THE RULES

LIGHT GUN SIGNALS



FUEL SUPPLY

HEY, CHUMP! DON'T EVER
CRANK A SHIP UNLESS SOME
GUY'S IN THE BUS AND THE
BRAKES ARE SET--OR YOU
HAVE CHOCKS UNDER THE WHEELS!

Galloping Goldfish!
I'M FREE!

CONK!

TSK! TSK! HE SHOULD'VE
USED THOSE CHOCKS!

STARTING RULE

WHOA! WATCH WHERE
YOU'RE TAXIING
THAT PLANE, JERK !!!

POOR BOOB! IF HE MISSES
THE PLANE, HE'LL PROBABLY
SMACK INTO THE HANGAR --
HE SHOULD PAY ATTENTION!!



TAXIING

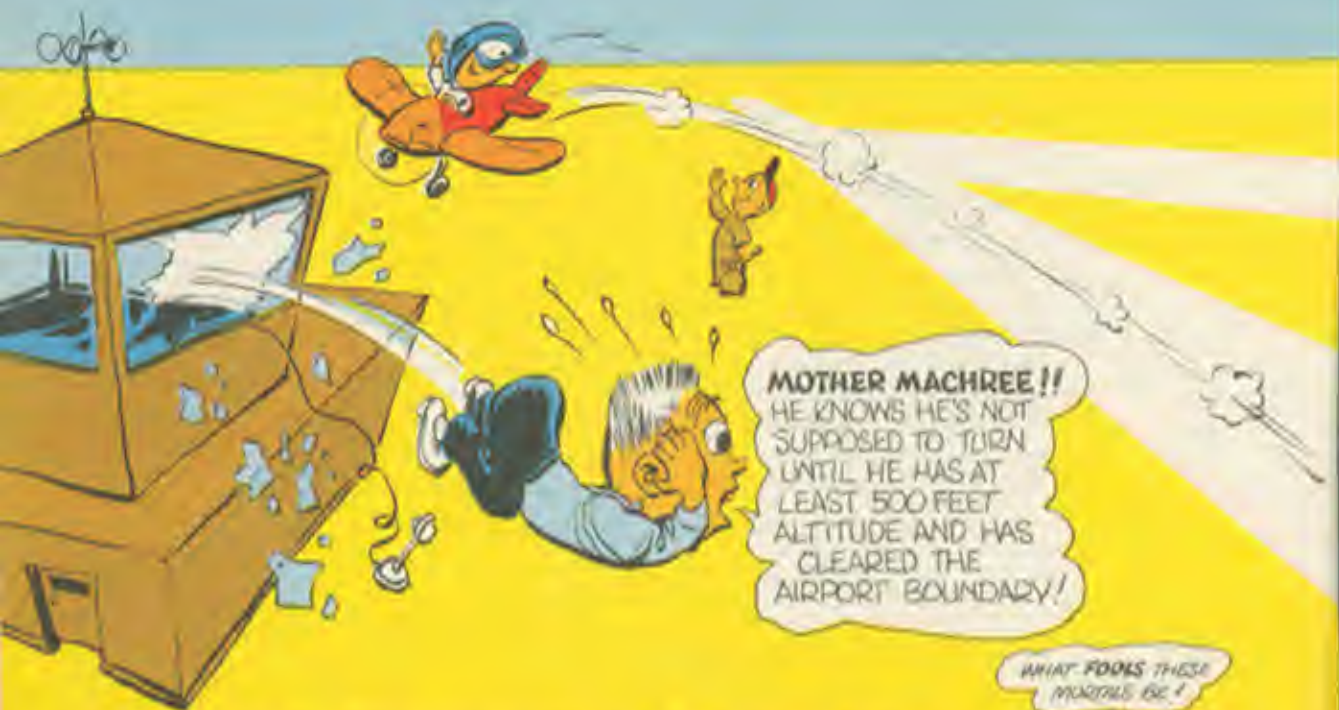
I HATE TO BE CRITICAL, BUT
YOU'RE VIOLATING A TAKEOFF
RULE: ALWAYS BE SURE YOU
HAVE A CLEAR RUNWAY!

I WONDER IF MYRTLE
PAID MY INSURANCE
FEE LAST MONTH...

SMACK!

SOME GUYS NEVER LEARN!

The TAKEOFF



MOTHER MACHREE!!
HE KNOWS HE'S NOT
SUPPOSED TO TURN
UNTIL HE HAS AT
LEAST 500 FEET
ALTITUDE AND HAS
CLEARED THE
AIRPORT BOUNDARY!

WHAT FOOLS THESE
MORTALS ARE!

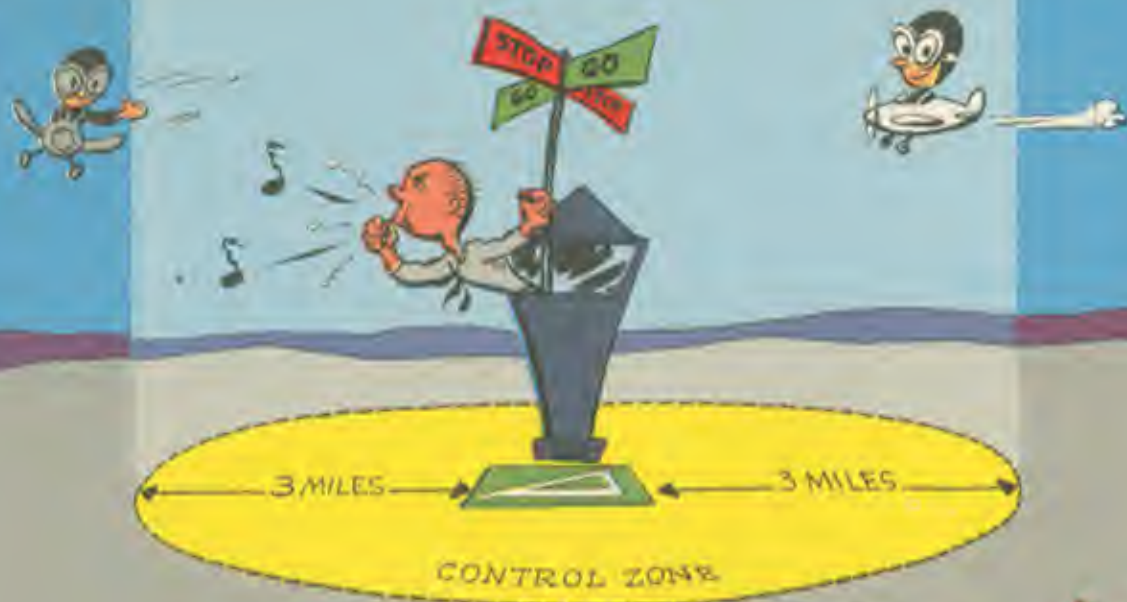
TURN AFTER TAKEOFF

THE RULE BOOK SEZ:
CIRCLE TO THE **LEFT**
UNLESS THE TOWER
MAN INSTRUCTS ME
OTHERWISE



ATTABOY!

CIRCLING the AIRPORT



THE TOWER MAN IS
THE BOSS MAN IN
THE CONTROL ZONE

The CONTROL ZONE



Overcast

1000 Feet

3 Miles

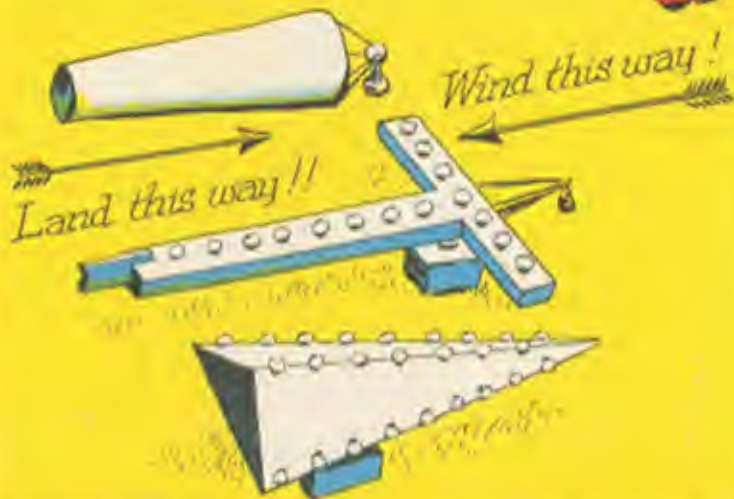
I GOTTA HAVE AT LEAST A 1000
FOOT CEILING AND 3 MILES
FORWARD VISIBILITY TO FLY
IN A CONTROL ZONE, UNLESS
I HAVE SPECIAL PERMISSION

3 Mile Radius

CONTROL ZONE *Minimums*

I ALWAYS LAND **INTO**
THE WIND--WIND MARKERS
TELL ME WHICH WAY THE
WIND IS BLOWING

YOU MAY NOT SEE ALL
THESE AT ANY ONE AIRPORT--
BUT BE SURE AN' WATCH THE
MARKER SO YOU'LL KNOW
WHICH WAY TO LAND



AIRPORT WIND MARKERS



ME - I ALWAYS LAND
INTO THE WIND

OH, YOU DUMMY! YOU DUMB DUMMY! ALWAYS PICK THE RUNWAY IN LINE
WITH THE WIND AND LAND INTO THE WIND, UNLESS I TELL YOU DIFFERENT!

LAND INTO the WIND



APPROACH LEG

REMEMBER: START YOUR APPROACH AT LEAST 1000 FEET FROM AIRPORT BOUNDARY TO HAVE RIGHT-OF-WAY IN LANDING!

1000 Ft.

I ALWAYS KEEP TUNED TO THE
TOWER FREQUENCY UNTIL I'VE
EITHER PARKED THE SHIP OR
HAVE LEFT THE CONTROL ZONE

INSTRUCTIONS INSTRUCTIONS

INSTRUCTIONS

INSTRUCTIONS

It comes
out here

GET HED TO THE TOWER
MAN'S JIVE-- STAY ON HIS
BEAM AND YOU WON'T
GO WRONG!

TOWER INSTRUCTIONS



AIRPLANES AND
ROTORPLANES -- THAT'S
US! WE HAVE RIGHT-
OF-WAY **No. 4**




THE AIRCRAFT THAT CAN
CONTROL ITS MOVEMENTS THE
MOST GIVES WAY TO THE ONE
THAT CAN CONTROL ITSELF THE
LEAST -- DO YA KETCH ON?



I'M FLYIN' AN
AIRSHIP THAT GIVES
ME THE **No. 3**
RIGHT-OF-WAY



AIRCRAFT RIGHT-OF-WAY



BEING IN A GLIDER
MEANS I HAVE **No. 2**
RIGHT-OF-WAY

A FIXED OR
A FREE BALLOON
GETS RIGHT-OF-WAY
OVER EVERYTHING
-- **NUMBER 1!**

I GOTTA ALTER MY COURSE
TO THE RIGHT TO PASS AN
OVERTAKEN AIRCRAFT AT A
DISTANCE OF 500 FT. OR MORE

I GOT THE
RIGHT-OF-WAY!

500 Ft.

IT'S DANGEROUS
TO PASS TOO
CLOSE!

OVERTAKING *Right-of-way*

I MUST GIVE WAY
TO STAY 500 FEET
FROM A PLANE THAT'S
APPROACHING FROM
THE RIGHT!

YOU'RE ON MY LEFT,
SO I HAVE THE
RIGHT-OF-WAY

500 Ft.

SCREECH!

SCRAM, BUD! I GOT
TH' RIGHT-OF-WAY!

CROSSING *Right-of-way*




500 Ft.



WHEN TWO AIRCRAFT APPROACH
HEAD-ON, EACH GIVES WAY TO HIS
RIGHT SO THAT THEY PASS EACH
OTHER AT LEAST 500 FT. APART



MEETING HEAD-ON



I GOTTA LAND,
SO YOU BETTER
DUCK!

EMERGENCY LANDINGS
ALWAYS HAVE RIGHT-OF-WAY!



EMERGENCY LANDINGS



EXCEPT IN TAKEOFFS OR
LANDINGS, I MUST FLY HIGH
ENOUGH TO GLIDE CLEAR OF
THIS STUFF, AND NEVER
BELOW 1000 FEET!

DON'T FLY BELOW THIS ALTITUDE OVER CITIES, OPEN AIR ASSEMBLIES, HOUSES, BOATS, OR VEHICLES

1000 Ft.

1000 Ft.



ALAS!
IT CAN HAPPEN
TO YOU IF YOU
FLY TOO LOW!

MINIMUM ALTITUDE: 1000 Feet

YOU COULDA' CLEARED
THE TOWN WHEN YOUR
ENGINE FAILED, IF YOU'D
BEEN UP HIGH ENOUGH!





VIOLATION!

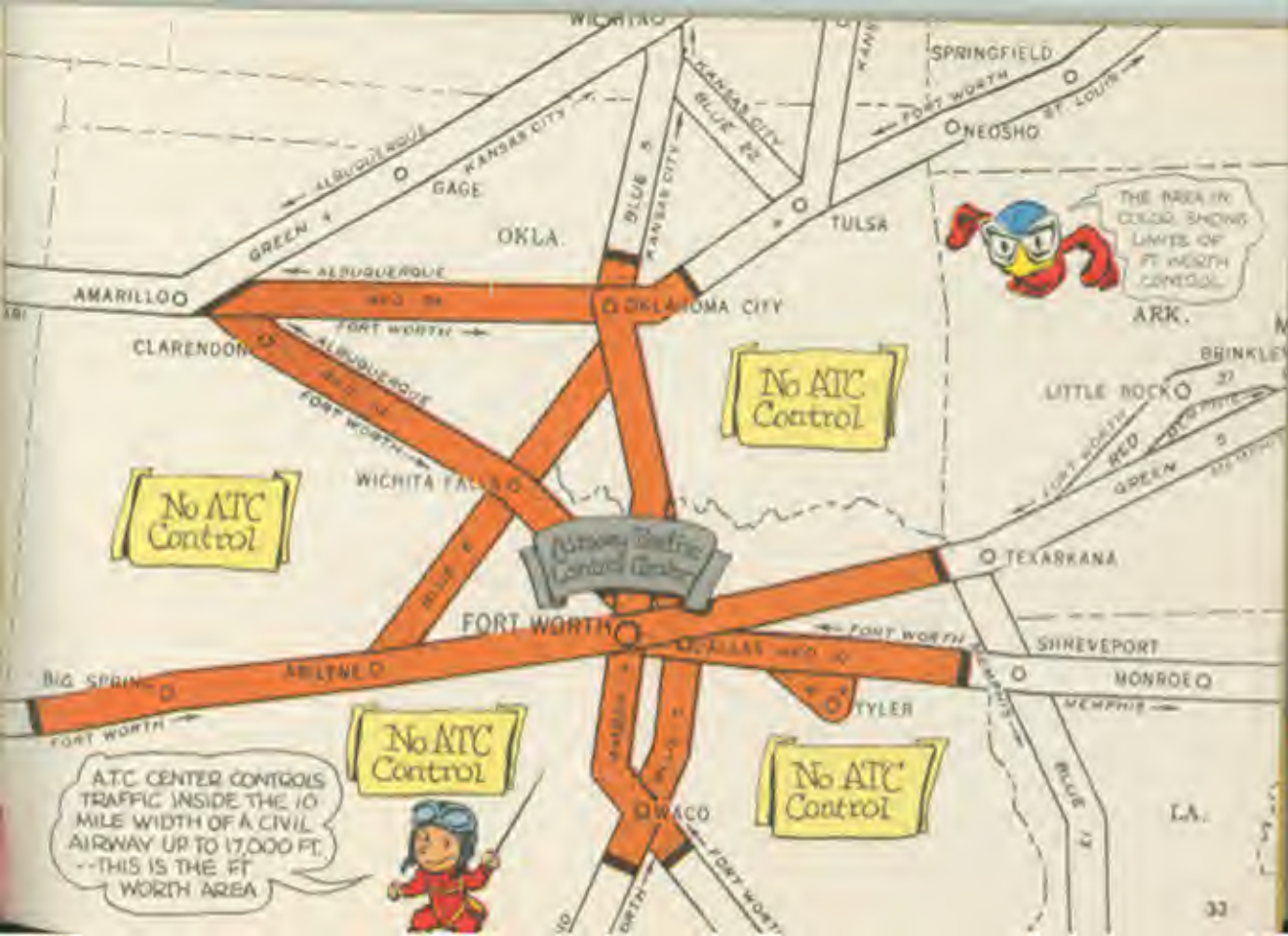
NEVER, NEVER, FLY SO AS
TO ENDANGER FRIENDLY
AIRCRAFT IN THE AIR, OR
PEOPLE AND PROPERTY
ON THE GROUND !!

IT'S IMPORTANT TO KNOW ALL THE
RULES ABOUT FLYING THE AIRWAYS ---
SO WE'RE ON OUR WAY TO LEARN ABOUT
AIRWAY TRAFFIC CONTROL





AIRWAY TRAFFIC CONTROL AREAS of U.S.



I GET PRIORITY
OVER OTHER PLANES
'CAUSE I'M ON A
GREEN AIRWAY



PLANES ON AMBER,
RED, OR BLUE
AIRWAYS MUST
GO UP 500 FT.
WHEN CROSSING
A GREEN
AIRWAY

PRIORITY
SOUTH

PRIORITY
RED SOUTH

I'M ON A RED AIRWAY SO I
CRUISE OVER BLUE AIRWAY
WITHOUT CHANGING ALTITUDE.
BUT I MUST GO UP 500 FT.
TO CROSS AMBER AIRWAY

GREEN AIRWAY • NO. 1 PRIORITY
PRIMARY ROUTES EAST AND WEST



NO. 4
NORTH

AMBER AIRWAY • NO. 2
PRIMARY ROUTES NORTH AND

RED AIRWAY • NO. 3 PRIORITY
SECONDARY ROUTES EAST AND WEST

BLUE AIRWAY
SECONDARY ROUTES

**PRIORITY of
AIRWAYS**

AIRWAY PRIORITIES
DETERMINE WHICH ONE
HAS RIGHT-OF-WAY





AY VANT TO BE ALONE

"O" MEANS "OFF
THE AIRWAYS" -- NO
PRIORITY!



G

GREEN

1

A

AMBER

2

R

RED

3

B

BLUE

4

O

THIS IS HOW
I REMEMBER
PRIORITIES
OF AIRWAYS



A.T.C. CLEARANCE

APPROVAL REQUESTED, NC18432,
DOUGLAS SMITH, NEW HACKENSACK,
4000 FEET, NEWARK, PHILADELPHIA,
RICHMOND--SPEED 160, RADIO 3105,
PROPOSED DEPARTURE 0930*
ELAPSED TIME 2+20--
ALTERNATE, WASHINGTON--

Operations
Office



*9:30 AM

1. Flight plan filed with AIRWAY TRAFFIC CONTROL Center

3. Airport tower reports departure



ATC
Center



NC18432 CLEARED FROM
NEW HACKENSACK OVER
NEWARK AND PHILADELPHIA
TO 25 MILES SOUTHWEST OF
PHILADELPHIA, TO CRUISE AT
4000 FEET--CLEARANCE
VOID IF AIRCRAFT NOT OFF
GROUND BY 0935*

*9:35 AM

2. ATC clears the flight

4. NC18432 is on clearance at 4000 feet



THE RADIO RANGE
STATION SENDS SIGNALS
TO GUIDE ME IN
MY FLIGHT

THERE ARE OVER 330
RADIO RANGE STATIONS
ON U.S. AIRWAYS!

This is a
**RADIO RANGE
STATION**



RADIO RANGE STATION

Be guided by your earphones!



I HEAR THE **N** SIGNAL,
DAH-HH-DIT!

I HEAR THE **A** SIGNAL,
DIT-DAH-HH!

I HEAR
DAH-HH!

I HEAR
DAH-HH!

ON COURSE

THIS SHOWS
HOW A PILOT
CAN TELL IF
HE'S ON COURSE

AIRWAYS RADIO SIGNALS

WE GOTTA FLY ON THE RIGHT
SIDE OF AN "ON COURSE" SIGNAL,
OR A CENTER LINE OF
AN AIRWAY--

UNLESS THE
CONTROL CENTER
TELLS US
OTHERWISE

THESE FIVE TOWERS
ARE ASSIGNED TO FORM
THIS COMBINATION OF
SIGNALS-- THE RED DASHES
ARE "ON COURSE" SIGNALS
AND SIGNAL-- "JUST DAHHH?"

DAHHH-DIT
DAHHH-DIT

DIT-DAHHH
DIT-DAHHH

THE SUREST WAY
TO STAY ON MY COURSE
IS TO FOLLOW THE RIGHT
SIDE EDGE OF AN ON
COURSE "DAHHH!"



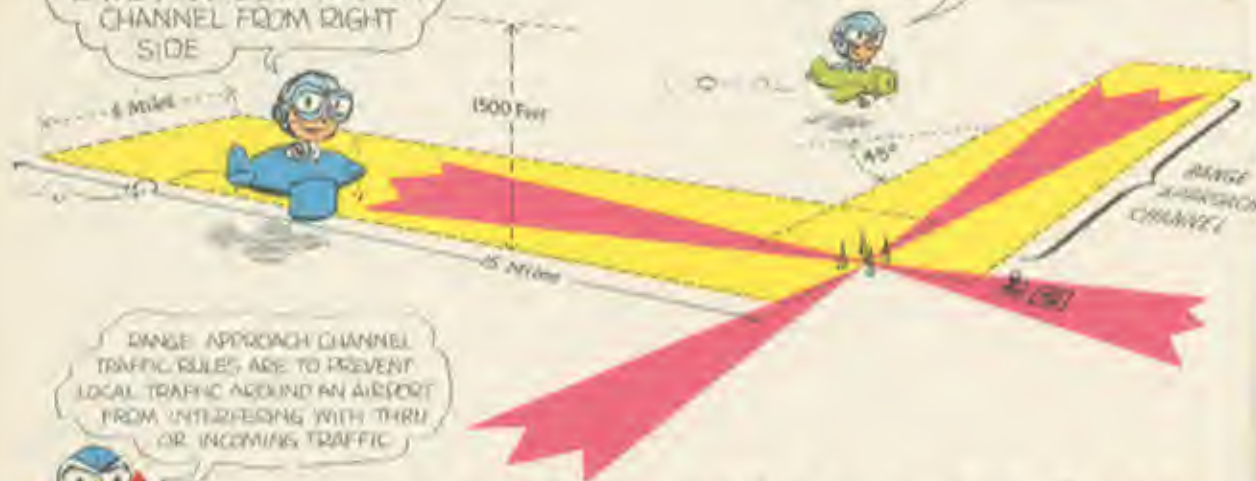
KEEP TO THE RIGHT

JUST LIVE
WHEN YOU'RE
DRIVIN' A CAR!



I DON'T HAVE A FLIGHT PLAN, SO I MUST STAY UNDER 1500 FT. AND ENTER RANGE APPROACH CHANNEL FROM RIGHT SIDE

I'M OKEH, BECAUSE I'M CROSSING A RANGE APPROACH CHANNEL UNDER 1500 FT. AT AN ANGLE OF 45° OR MORE



RANGE APPROACH CHANNEL Traffic



ODD and EVEN ALTITUDES



I MUST HAVE SUITABLE
RADIO EQUIPMENT FOR THE
TYPE OF FLIGHT THAT I'M
PLANNING TO MAKE

CIVIL AIRWAY

RADIO EQUIPMENT





WHEN YOUR RADIO GOES ON
THE BUM, ON OR OFF THE
AIRWAY, IT'S WISE TO LAND
AND GET IT FIXED QUICK!



I'M GONNA LAND AS
QUICK AS I CAN, BECAUSE
IF I RUN INTO ANY BAD
WEATHER, I'LL BE WITHOUT
RADIO COMMUNICATION

RADIO FAILURE



TO CROSS
A CIVIL AIRWAY,
I MUST FIRST GO UP 500
FEET HIGHER THAN MY
CRUISING ALTITUDE--

500 Ft

Cruising Altitude

1

CIVIL AIRWAY

THEN I CUT ACROSS
AT AN ANGLE OF 45
DEGREES OR MORE--

45°

CIVIL AIRWAY

2

AND
RESUME MY
ORIGINAL HEADING
AND ALTITUDE

3

CROSSING AN AIRWAY

Drum die drum die drum die

I CAN'T CHANGE MY FLIGHT PLAN
EN ROUTE WITHOUT ATC. APPROVAL
UNLESS EMERGENCY OR WEATHER
MAKES ME. THEN I NOTIFY THE
AIRWAY TRAFFIC CONTROL
CENTER RIGHT AWAY!

Original Approved Altitude



LET ATC KNOW BY RADIO
THROUGH THE NEAREST
COMMUNICATIONS STATION

FLIGHT PLAN CHANGE



MOST OF A PILOT'S FLIGHTS ARE
MADE IN ACCORDANCE WITH

CONTACT FLIGHT RULES



LET'S LEARN
ABOUT 'EM!



OVERCAST




aaaaa

IT'S JUST A
LOTTA BULL!

THIS IS NOT CONTACT FLIGHT





THIS IS CONTACT FLIGHT
BECAUSE I CAN ALWAYS
TELL WHERE I AM BY
LOOKING AT THE
GROUND OR WATER

THIS IS CONTACT FLIGHT



CEILING

CEILING IS DEFINED
AS THE DISTANCE
FROM THE CLOUD
BASE TO THE
GROUND





VISIBILITY IS THE
GREATEST DISTANCE AT
WHICH OBJECTS CAN BE
READILY RECOGNIZED
WITH THE NAKED EYE



VISIBILITY

Day **FLIGHT BELOW 1000 FT.** Night



VISIBILITY MUST BE
1 MILE IF BY DAY--

REMEMBER-- THESE
ARE CONTACT FLIGHT
WEATHER MINIMUMS



1000 FT.



2 IF BY NIGHT

2 Miles

WEATHER MINIMUMS *Outside*

FLIGHT ABOVE 1000 FT.

Day or Night

500 Ft

CRUISING ALTITUDE

1000 Ft Altitude

3 Miles

CEILING MUST BE AT
LEAST 500 FT. ABOVE CRUISING
ALTITUDE - AND VISIBILITY
AT LEAST 3 MILES
DAY OR NIGHT

Control Zone



Inside Control Zone

EVEN THOUGH I'M IN A SEAPLANE, MY MINIMUM ALTITUDE OVER WATER IS **300 FT.** BECAUSE I MUST BE HIGH ENOUGH TO LAND SAFELY!



300 Feet

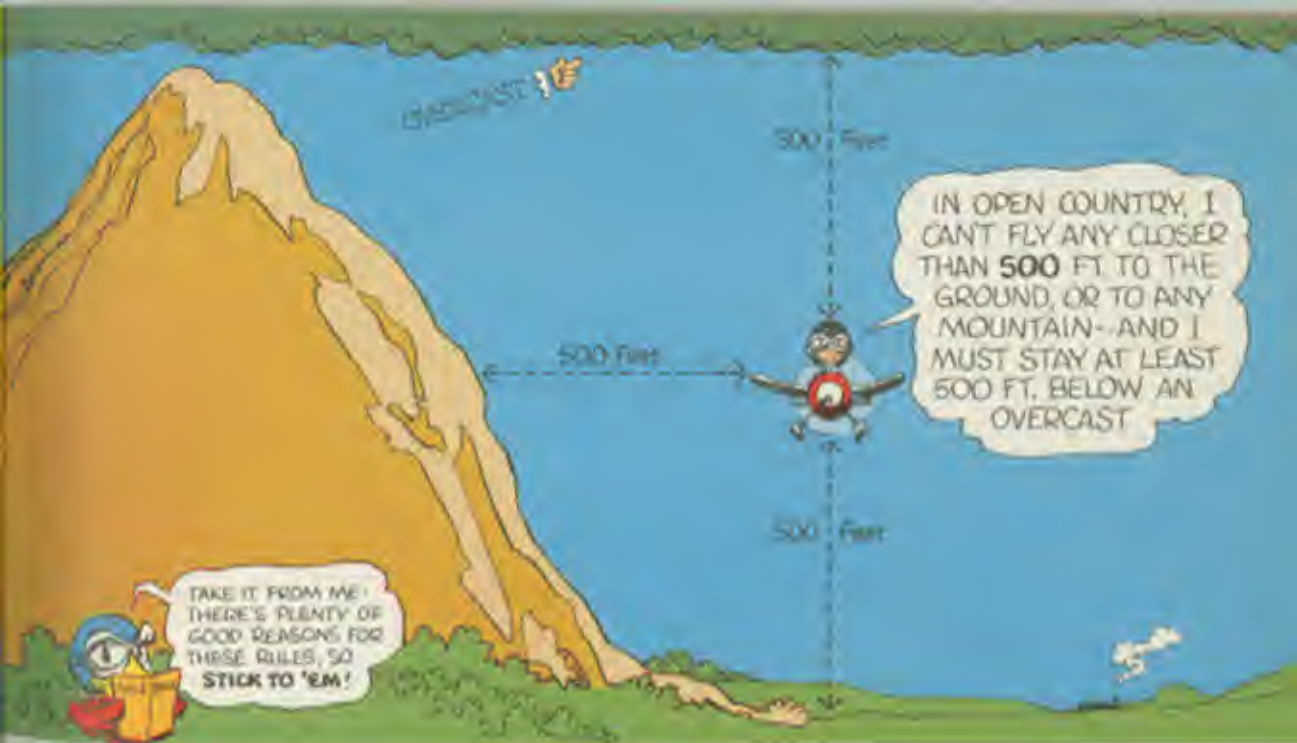


LANDPLANES, LIKE I'M FLYING, HAVE TO STAY AT LEAST **500 FT.** ABOVE WATER


500 Feet



ALTITUDE OVER WATER



MINIMUM DISTANCE: Open Country



AH! THERE'S
PLAINVILLE'S
WATER TOWER
I CAN USE THAT TO
CHECK MY POSITION

THE WATER TOWER
IS A GEOGRAPHICAL
CHECK POINT!

CHECK POINT

Cities
or Islands

Mountains
or Canyons

HERE ARE SOME OTHER
POINTS I CAN USE TO
DETERMINE MY POSITION
AND DIRECTION

Railroad
Lines

Water
Towers

Race
Tracks

Roadways

Rivers

Highways

More check points



CRUISING ALTITUDE



THIS IS CALLED OVER-THE-TOP
CONTACT FLIGHT, IN WHICH I
HAVE VISUAL REFERENCE TO
THE GROUND AT ALL TIMES
IN SPITE OF CLOUDS

THIS TYPE OF FLIGHT IS NOT
PERMITTED UNLESS YOU CAN
COME DOWN BETWEEN THE
CLOUDS AND MAINTAIN A
DISTANCE OF 2000 FEET
FROM ALL CLOUDS



OVER-THE-TOP FLIGHT

**LOOK OUT—THERE MAY BE
AN AIRLINER ABOUT TO BREAK
OUT OF THE OVERCAST**



500 Feet

2000 Feet

500 Feet

I DON'T DAST FLY CLOSER
THAN 2000 FT. HORIZONTALLY
TO ANY CLOUD, NOR CLOSER THAN
500 FT. VERTICALLY TO ITS BASE
—UNLESS I HAVE AN
INSTRUMENT CLEARANCE

BEWARE OF CLOUDS *During Contact Flight*



--- They may have a **SOLID CORE!!**

I'M ON A CONTACT FLIGHT RULE (CFR) FLIGHT PLAN AND CAN'T FLY CLOSER THAN 500 FT. TO A CLOUD BASE OR AN OVERCAST



I AM FLYING ON AN INSTRUMENT FLIGHT RULE (IFR) FLIGHT PLAN I MAY FLY CONTACT AS CLOSE TO AN OVERCAST AS I WISH, AND I'M STILL "CONTACT" AS LONG AS I CAN SEE THE GROUND OR WATER



CONTACT---

I CAN CONTINUE THROUGH
OVERCAST BECAUSE I'M
ON AN INSTRUMENT
FLIGHT PLAN



I MUST TURN BACK OR GO
AROUND CLOUDS WHEN
FLYING UNDER CFR



2000'

... OR INSTRUMENTS

Two fools with a single thought

I AIN'T SUPPOSED TO FLY
CLOSER TO A CLOUD THAN
2000 FT. HORIZONTALLY, BUT
IT NEVER HURT **ME** ANY!

CLOUDS ARE VILLAINS

WHERE'S TH' CRASH TRUCK?

LISTEN, SWEETHEART... YOU GOTTA
HAVE A **CURRENT INSTRUMENT**
RATING AND APPROVED **FLIGHT**
PLAN TO FLY IN THIS STUFF!



stick right! No glancing the other!



Overcast

THROUGH THE OVERCAST





LEARNED **INSTRUMENT FLIGHT RULES!!**

I GOT MY CURRENT INSTRUMENT
RATING--I GOTTA FILE THIS FLIGHT
PLAN AND GET IT APPROVED
BEFORE I CAN MAKE AN
INSTRUMENT FLIGHT

Hold yer horsepower!

Hurry, do!
Let's go!

FLIGHT
PLAN

BEFORE *Instrument Flight*

Identification



Type of Plane



Pilot



Point of Departure



Route and Altitude



Point of First Intended Landing



Air Speed



Radio Frequency



Proposed Departure Time



Elapsed Time



Alternate Airport



Radio Freq



Remarks



Fuel Supply



INSTRUMENT FLIGHT PLAN

Instrument



I'M ABOVE A SOLID OVERCAST, AND CONTROL THE DIRECTION OF MY COURSE BY REFERRING TO INSTRUMENTS--- THIS IS OVER-THE-TOP INSTRUMENT FLIGHT

OVERCAST

Contact



500 Feet
(Minimum)

500 Feet

HE'S FLYING STRAIGHT CONTACT FLIGHT RULES




My Checklist:

1. Weather?
2. Check Points?
3. Radio Facilities?
4. Fuel?
5. Maps?
6. Alternate Airports?
7. Airplane?
8. Myself????



CHECKLIST





This pilot is sad
because he loves
to fly, but can't
take off on
instrument
flight until the
ceiling is at
least **500** feet
and there's a
visibility of
one mile...



↑ Ceiling 10 ft

But he'd be
a lot sadder
if he did
take off!



TAKEOFF

Weather Minimums



**I CAN'T TAKE OFF ON AN INSTRUMENT
FLIGHT PLAN, UNLESS**

THE CEILING AT MY
DESTINATION IS AT
LEAST 800 FEET
WITH 1 MILE
FORWARD VISIBILITY

OR 700 FEET
AND 3 MILES

OR 600 FEET
AND 4 MILES

OR 500 FEET
AND 5 MILES

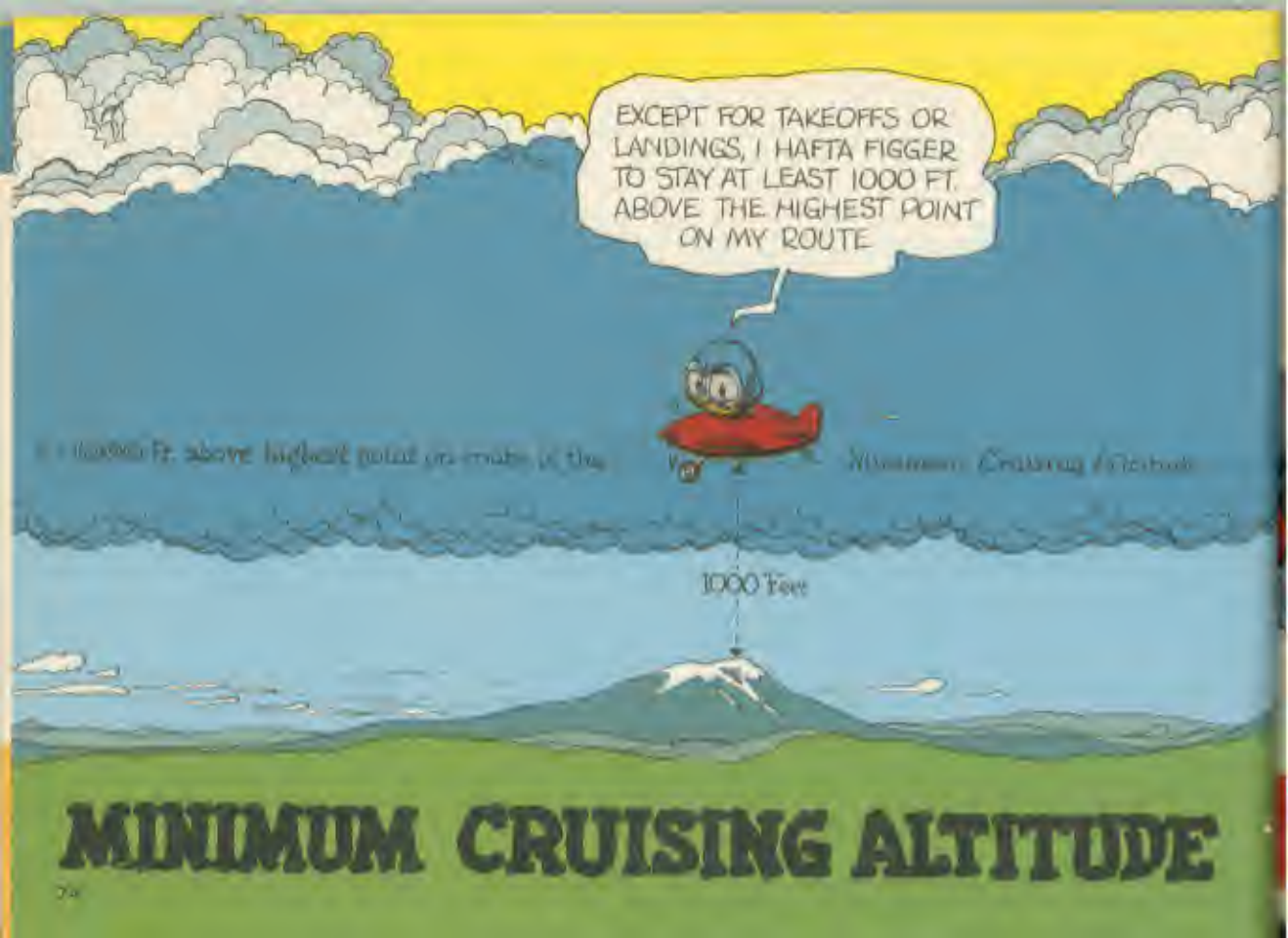
1 Mile

3 Miles

4 Miles

5 Miles

INSTRUMENT *Clearance Minimums*



EXCEPT FOR TAKEOFFS OR
LANDINGS, I HAFTA FIGGER
TO STAY AT LEAST 1000 FT.
ABOVE THE HIGHEST POINT
ON MY ROUTE

1000 ft. above highest point on route of the

Yes

Minimum Cruising Altitude

1000 Feet

MINIMUM CRUISING ALTITUDE



I CAN FIND MYSELF BY
TUNING IN ON A
RADIO FIX!



Here's that **OVERCAST** again!



WHERE AM I?

No signal in here

I'M IN A CONE OF
SILENCE FIX----I
FOLLOW THE SIGNAL
FOR "ON COURSE" UNTIL
IT STOPS FOR A MOMENT.
THEN I KNOW I'M OVER
RANGE STATION "X"

I JUST PASSED A
FAN MARKER
FIX-- BY CHECKING MY
MAPS, I KNOW I AM
NOT FAR FROM RADIO
RANGE STATION "X"

RADIO FIXES ARE SIMPLY
PLACES ON AN AIRWAY
WHERE VARIOUS TYPES OF
RADIO SIGNALS ARE USED
TO CHECK YOUR POSITION

A PILOT MUST REPORT
TIME AND ALTITUDE OVER
EACH RADIO FIX !

RADIO FIXES

THIS IS AN **INTERSECTION**
FIX--I AM FLYING ON A LEG
OF "B" AND I'M TUNED TO "X".
--I KNOW MY POSITION AS
SOON AS I CROSS THE ON
COURSE LEG OF STATION "Z"



SOME STATIONS HAVE
A **Z-TYPE MARKER**
FIX, THE SIGNAL OF
WHICH I GET JUST
BEFORE ENTERING
THE CONE OF SILENCE
--THEN I'M RIGHT
OVER STATION "B"

Cone of Silence

Z-Type Marker




Range Station

B

AIRWAY

CIVIL

ON COURSE LEG



IF MY RADIO GOES
ON THE FRITZ, I HAVE TO DESCEND
TO WHERE I CAN FOLLOW CONTACT
FLIGHT RULES--OR LAND AT THE
FIRST CONTACT AIRPORT

500 Ft.
or more,
as usual

RADIO TROUBLE?

PULL'ER UP, BUTCH! YOU'RE NOT ALLOWED
TO LET DOWN THROUGH AN OVERCAST EXCEPT
OVER A RANGE STATION, UNLESS YOU HAVE
EXCELLENT KNOWLEDGE OF THE TERRAIN
AND CAN DEFINITELY LOCATE YOUR
POSITION BY RADIO!!



HOW *Not* TO "LET DOWN"!

↑
This is,
of course,
an overcast.

I CAN USE AN AIRPORT AS MY ALTERNATE IF IT HAS A RADIO DIRECTIONAL RANGE, A CEILING OF 2000 FEET, AND 3 MILES FORWARD VISIBILITY—

--OR A CEILING OF BROKEN CLOUDS AT 1500 FEET AND 3 MILES FORWARD VISIBILITY

WITHOUT THE RADIO DIRECTIONAL AID, MY ALTERNATE AIRPORT MUST HAVE AN UNLIMITED CEILING AND A FORWARD VISIBILITY OF 3 MILES

With RADIO DIRECTIONAL RANGE

this or this



Without R.D.R.

Ceiling Unlimited!



ALTERNATE AIRPORT *Weather Minimums*

THE WEATHER HAS
"CLOSED IN" AT THE
AIRPORT WHERE I WAS
GOING--SO I'M USING
MY ALTERNATE!

ORIGINAL-FLIGHT PLAN

Here an airport has descended.
By the clouds so darkly dense.
Smart pilot! He knows it's a field.
Out where the weather's clear!

ALWAYS PICK AN
ALTERNATE AIRPORT--
YOU CAN'T ALWAYS WAIT
TIL THE CLOUDS LIFT!

ABOUT---

--FACE!!

DIS BOID FILED A
FLIGHT PLAN, AN'
DIDNT LET US
KNOW WHEN HE
LANDED HERE
AT DE FINISH
OF HIS FLIGHT!
AN' ARE WE
BOINED UP!


CENSORED

I BEEN SEARCHIN' FER THIS
MUG OVER TWO HOURS!! @*!!
-MEBBE HE DONT KNOW HE'S
GONNA BE HOOKED FER TH'
BILL-- BUT HE

IS!

FILING AN ARRIVAL

DONT GET STUCK!
FILE YOUR ARRIVAL
TIME!!



I'M MAKIN' A NOISE LIKE A
FOG HORN FOR FIVE SECONDS
EVERY MINUTE, 'CAUSE I'M
PARKED ON THE WATER

OKAY, THIS TIME--BUT
REMEMBER, PAL, I'M
SUBMITTING TO THIS--~~HONK!~~
ONLY IN THE INTEREST
OF SAFETY EDUCATION--
NEXT TIME GET A
FOG HORN--

**HONK!
HONK!**

IN FOG OR BAD WEATHER



NO ACROBATICS OVER HERE

3000 Feet
Minimum Ceiling !!

3 Miles
Minimum Visibility !!

1500 Feet
Minimum Pull-out !!

IF YOU'RE GONNA DO ANY
ACROBATICS, REMEMBER
THESE MINIMUMS!


ACROBATIC Weather Minimums

LOOK OUT BELOW!!



SOME NUTWIT VIOLATED THE RULE WHICH SAYS: DO NOT DROP ANY UNAUTHORIZED THING FROM AN AIRCRAFT, OTHER THAN UNREFINED WATER, FUEL, SAND, OR (NOT LIFT OR SMALLER)!





I'M ALL SET FOR NIGHT
FLIGHT - THESE THREE
POSITION LIGHTS MUST BE
ON BETWEEN SUNSET
AND SUNRISE

ZZZZZZZ!

LIGHTS AT NIGHT



DISTRESS SIGNALS

TEST YOUR KNOWLEDGE

YOU'VE BEEN THROUGH THIS BOOKLET ONCE. Now study it again. Each time you look at a page you'll find something new that escaped your attention before. When you are satisfied that you have mastered "I've Got Wings," then try your hand at the two quizzes on the following pages.

There are twenty questions in each quiz. Each question is followed by the number of the page containing the correct answer. The correct answers are also listed on page 92.

Each question correctly answered is worth 5 points. A score of 100 is perfect. Good going! Ninety is good. Eighty . . . you're getting wobbly. A good pilot knows all the answers. Dig in. Your wings are worth a lot of work and study.

QUIZ NUMBER 1

True False

- — 1. A flashing red light-gun signal means "Taxi back to the hangar." (p. 8)
- — 2. I will usually circle the airport to the right. (p. 15)
- — 3. An air vehicle that can control itself the most gives way to the one that can control its movements the least. (p. 22-23)
- — 4. Eight hundred feet is the minimum altitude over cities, crowds, etc. (p. 28)
- — 5. I must alter my course to pass 500 feet or more to the right of overtaken plane. (p. 24)
- — 6. When I am in the center of the beam I hear "Dahhh." (p. 38)
- — 7. Heading north I fly at an even altitude. (p. 41)

True False

- — 8. I need not keep tuned to control tower after take-off. (p. 21)
- — 9. Ceiling is the distance from the top of the clouds to the ground. (p. 50)
- — 10. When flying above 1,000 feet, day or night, I must be at least 500 feet below the ceiling and have 3 miles or more visibility. (p. 53)
- — 11. CFR over open country I must not fly any closer than 500 feet to the ground, mountains, or the ceiling. (p. 55)
- — 12. On instrument flights I must stay at least 500 feet above hills, mountains or water, except for take-offs and landings. (p. 74)
- — 13. If my radio goes bad I have to descend to where I can fly CFR or land at the first contact airport. (p. 78)
- — 14. You need a 1,000 foot ceiling and 2 miles forward visibility to fly in a control zone. (p. 17)

True False

- _____ 15. I pick the runway in line with the wind-marker and land with the wind. [p. 18-19]
- _____ 16. When two aircraft approach head-on, they give way to the right to pass each other with 500 feet between them. [p. 26]
- _____ 17. The plane approaching from the right has the right of way. [p. 25]
- _____ 18. The sound of the A signal is "Dit-Dohhh." [p. 38]
- _____ 19. I can fly on either side of an "on course" signal on an airway. [p. 39]
- _____ 20. There are four kinds of airways with different priorities and their colors are green, amber, red, and blue. [p. 34]

QUIZ NUMBER 2

- _____ 1. I can change my flight plan en route by notifying an A.T.C. center through the nearest communication station. [p. 46]

True False

- _____ 2. An airplane has number 3 right-of-way in the air. [p. 22]
- _____ 3. Power lines, bridges, oil wells, rivers, and race tracks are good check points. [p. 57]
- _____ 4. I stay 2,000 feet horizontally from clouds when flying CFR. [p. 60]
- _____ 5. If the ceiling is under 500 feet or the visibility is less than one mile, I can't take off on instruments. [p. 72]
- _____ 6. For an instrument flight, a 600-foot ceiling and 3 miles forward visibility at destination are satisfactory minimums. [p. 73]
- _____ 7. No acrobatics when flying over control zones, cities, crowds, restricted areas, or civil airways. [p. 84]
- _____ 8. I may turn after clearing the airport boundary when I have reached 400 feet altitude. [p. 14]
- _____ 9. To have the right of way in landing I start my approach at least 1,000 feet from the airport boundary. [p. 20]

True False

10. Emergency landings have the right of way when a plane is on fire. (p. 27)
11. The sound of the N signal is "Dahhh-dit." (p. 38)
12. Heading east I fly at an odd altitude. (p. 41)
13. In contact flight the pilot controls his flight by reference to the ground or water. (p. 49)
14. At night, when flying outside a control zone and below 7,000 feet, I must have a minimum visibility of 4 miles. (p. 53)
15. Both land planes and seaplanes are allowed to fly over water at an altitude of 300 feet. (p. 54)
16. In contact flight it isn't important to pick any particular cruising altitude. (p. 58)
17. When flying contact flight rules I must turn back or go around clouds. (p. 63)

True False

18. An alternate airport with a ceiling of broken clouds at 1,500 feet must have 3 miles forward visibility. (p. 80)
19. When the weather closes in ahead of me or at my destination—the smartest maneuver I can make is an 180-degree turn (about face). (p. 81)
20. I can do acrobatics if I pull out at least 7,000 feet from the ground. (p. 85)

ANSWERS

	Quiz 1	Quiz 2	Quiz 1	Quiz 2
1.	T	T	10.	T
2.	F	F	11.	T
3.	T	T	12.	F
4.	F	T	13.	T
5.	T	F	14.	F
6.	T	F	15.	F
7.	F	T	16.	F
8.	F	F	17.	T
9.	F	T	18.	T
			19.	T
			20.	F



"SLANGUAGE"

Ace—a combat pilot with five or more victories.

Blanket Drill—sleeping.

Blind Flying—a date with a girl you've never seen.

Bumps—the effect of updrafts and downdrafts encountered in flight.

Bunk Flying—talking aviation in quarters.

Buzzing—flying dangerously low over people or property on the ground; (taboo).

Caterpillar Club—a jump for life in a parachute qualifies for membership.

Chinese Landing—one wing low.

Clinker—a poorly executed maneuver.

Conservatory—a power-operated, glass-enclosed machine gun turret.

Contact—a warning called out by the pilot to inform the mechanic the ignition switch is on.

Cracking Good Show—highest possible praise of a performance.

Dead Stick—gliding plane, after the engine has conked.

Dogfight—combat between two planes.

Drive It In The Hangar—stop talking aviation.

Dummer—a bonehead act.

Dust Bin—underside rear gun turret in an enemy aircraft.

Eggs—bombs.

Fat Friends—balloons.

Flak—anti-aircraft fire.

Flying The Iron Beam or Iron Compass—pilot flying along railroad.

Flying Pig—aerial torpedo.

Flying the Gauges—instrument flying.

Gain Some Altitude—come to a more erect standing or sitting position. Used to correct the "civilian slouch" in new cadets.

Geese—enemy bomber formation.

Get Eager—do your best; strive to the utmost.

Give It The Gun—advance the throttle to accelerate engine speed.

Glasshouse—power operated turret.

Go Into A Tailspin—get mad.

Going Upstairs—gaining altitude; climbing.

Good Show—a commendable action.

Grab A Brace—come to a position of super attention; usually directed at new cadets.

Hangar Pilot—mechanic who takes a great flight.

Hedge Hopping—low flying.

He's In A Flat Spin—a bit touched.

Hit The Deck—when an aviator lands.

Hitting The Silk—to make a parachute jump.

Hot Crate—a speedy plane.

H. P.—a hot pilot.

Jinking—dodging anti-aircraft fire.

Lame Duck—damaged plane.

Laying The Eggs—dropping bombs.

Life Saver—a parachute.

Mustard—smart pilot.

Office—the pilot's cockpit, usually in a large airplane.

Onions—flaring anti-aircraft shells.

Overshoot—to glide beyond the landing field before landing.

Pea Shooters—the high-powered planes of the Air Forces.

Pulpit—the cockpit.

Ready Room—the room where pilots on duty assemble, ready for instant call to action.

Reef Back—pull back the stick in flying a plane.

Roll Up Your Flaps—stop talking.

Shoot Landings—to acquire practice in landing a plane.

Short Snorter—a member of an unofficial flyers' club, each member of which carries a one dollar bill autographed by fellow short snorters. Any members being unable to show the bill upon request of a fellow member, must forfeit a comparable bill or note to each short snorter present.

Shot Down In Flames—killed by a girl friend.

Shew—action in the air.

Slap On The Coal—open the throttle to give a plane more gas.

Solo—flying alone; hence doing anything else without company.

Spin Off—take a nap; or go to bed.

Spit Curl—a side slip in a plane.

Sugar Report—a letter to or from a girl friend.

Tear Off A Strip—to give someone a bowling out.

Tin Fish—an aerial torpedo.

Woofing—the telling of tall tales.



Hey! wait for me!

